

STEDMAN'S

Medical Dictionary

26th Edition

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NMN Abbreviation for nicotinamide mononucleotide.

NMP Abbreviation for nucleoside 5'-monophosphate.

NMR Abbreviation for nuclear magnetic resonance.

NO Symbol for nitric oxide.

No Symbol for nobelium.

Noack, M., 20th century German physician. SEE *N.'s syndrome*.

no-bel-i-um (No) (nō-bel'ē-ūm). An unstable transuranium element, atomic no. 102, prepared by bombardment of curium with carbon-12 nuclei and similar heavy ions on other elements of the transuranium series. [*Nobel* Institute for Physics and A.B. Nobel, Swedish inventor, 1833-1896]

Noble, Charles P., U.S. gynecologist, 1863-1935. SEE *N.'s position*.

Noble, Robert L., Canadian physiologist, *1910. SEE *N.-Collip procedure*.

Noble's stain. See under stain.

Nocard, Edmund I.E., French veterinarian, 1850-1903. SEE *Nocardia*; *Nocardiaceae*; *Preisz-N. bacillus*.

No-car-dia (nō-kar'dē-ā). A genus of aerobic nonmotile actinomycetes (family Nocardiaceae, order Actinomycetales), transitional between bacteria and fungi, containing variably acid-fast, slender rods or filaments, frequently swollen and occasionally branched, forming a mycelium. Coccus or bacillary forms are produced by these organisms, which are mainly saprophytic but may produce disease in human beings and other animals. The type species is *N. farcinica*. [E. *Nocard*]

N. asteroides, a species of aerobic, Gram-positive, partially acid-fast, branching organisms causing nocardiosis and possibly mycetoma in humans. SYN *N. leishmanii*.

N. brasiliensis, a species that closely resembles *N. asteroides* and is a cause of mycetoma in humans.

N. caviae, a species that causes mycetoma in humans; it closely resembles *N. asteroides* but differs by its ability to decompose xanthine and by formation of acid from inositol and mannitol.

N. farcinica, a species causing bovine farcy; it is the type species of the genus *N.*

N. gibsonii, SYN *Streptomyces gibsonii*.

N. leishmanii, SYN *N. asteroides*.

N. lurida, Former name for *Amycolatopsis orientalis* subsp. *lurida*.

N. lu'tea, a species found in a case of actinomycosis of the lacrimal gland.

N. madurae, former name for *Actinomyadura madurae*.

N. mediterranei, a species that produces rifamycin.

N. orientalis, a species that produces vancomycin.

no-car-dia, pl. **no-car-di-ae** (nō-kar'dē-ā, nō-kar'dē-ē). A vernacular term used to refer to any member of the genus *Nocardia*.

No-car-di-a-ce-ae (nō-kar'dē-ā'sē-ē). A family of acid-fast, Gram-positive, aerobic bacteria (order Actinomycetales) that includes the genus *Nocardia*. [E. *Nocard*]

no-car-di-a-sis (nō-kar'dē-ā'sis). SYN nocardiosis.

no-car-di-o-form (nō-kar'dē-ō-fōrm). Denoting an organism that morphologically and culturally resembles members of the genus *Nocardia*.

no-car-di-o-sis (nō-kar'dē-ō'sis). A generalized disease in humans and other animals caused by *Nocardia asteroides* and *Nocardia brasiliensis* (or occasionally by *Nocardia farcinica*) and characterized by primary pulmonary lesions which may be subclinical or chronic with hematogenous spread, and usually with involvement of the central nervous system. SYN nocardiasis.

granulomatous n., a form of n. characterized by emaciation, abdominal distention, and replacement of lymphoid tissue in lymph nodes and spleen by granulomatous tissue.

△ **noci-**. Hurt, pain, injury. [L. *noceo*]

no-ci-cep-tive (nō-si-sep'tiv). Capable of appreciation or transmission of pain. [see nociceptor]

no-ci-cep-tor (nō-si-sep'ter, -tōr). A peripheral nerve organ or mechanism for the reception and transmission of painful or injurious stimuli. [noci- + L. *capio*, to take]

no-ci-fen-sor (nō-si-fen'ser). Denoting processes or mechanisms

that act to protect the body from injury; specifically, a system of nerves in the skin and mucous membranes that react to adjacent injury by causing vasodilation. [noci- + L. *fendo* (only in compounds), to strike, ward off]

no-ci-in-flu-ence (nō'si-in'flū-ens). Injurious or harmful influence.

no-ci-per-cep-tion (nō'si-per-sep'shūn). The appreciation of injurious influences, referring to nerve centers. [noci- + perception]

△ **noct-**. Nocturnal. SEE ALSO *nycto-*. [L. *nox*, night]

noc-tal-bu-min-ur-ia (nok'tal-bū'mi-nū'rē-ā). A pathological increase of albumin in urine excreted during the evening, a rarely observed event. [L. *nox*, night, + albuminuria]

noc-tam-bu-la-tion (nok'tam-byū-lā'shūn). SYN somnambulism (1).

noc-tam-bu-lism (nok'tam'byū-lizm). SYN somnambulism (1).

noc-ti-pho-bia (nok'tē-fō'bē-ā). Morbid dread of night and its darkness and silence. [noct- + phobia]

noct. maneq. Abbreviation for L. *nocte manequa*, at night and in the morning.

noc-to-graph (nok'tō-graf). SYN scotograph. [noct- + G. *graphō*, to write]

noc-tu-ria (nok-tū'rē-ā). Urinating at night, often because of increased nocturnal secretion of urine resulting from failure of suppression of urine production during recumbency from obstructive lesions in the lower urinary tract or from detrusor instability. SYN nycturia. [noct- + G. *ouron*, urine]

noc-tur-nal (nok-ter'nāl). Pertaining to the hours of darkness; opposite of diurnal (1). [L. *nocturnus*, of the night]

no-dal (nō'dāl). Relating to any node.

NODE

node (nōd). 1. A knob or nodosity; a circumscribed swelling; in anatomy, a circumscribed mass of tissue. 2. A circumscribed mass of differentiated tissue. 3. A knuckle, or finger joint. SYN nodus [NA]. [L. *nodus*, a knot]

anterior tibial n., SYN anterior tibial lymph node.

n. of Aschoff and Tawara, SYN atrioventricular n.

atrioventricular n. (A-V n.), a small node of modified cardiac muscle fibers located near the ostium of the coronary sinus; it gives rise to the atrioventricular bundle of the conduction system of the heart. SYN nodus atrioventricularis [NA], n. of Aschoff and Tawara, Tawara's n.

Babès' n.'s, collections of lymphocytes in the central nervous system found in rabies.

buccinator n., buccal n., SYN buccal lymph node.

n. of Cloquet, one of the deep inguinal lymph n.'s located in or adjacent to the femoral canal; sometimes mistaken for a femoral hernia when enlarged. SYN Rosenmüller's gland, Rosenmüller's n.

coronary n., the uppermost part of the atrioventricular n.

cystic n., SYN cystic lymph node.

delphian n., a midline prelaryngeal lymph node, adjacent to the thyroid gland, enlargement of which is indicative of thyroid disease or early metastasis from the subglottic larynx.

diaphragmatic n.'s, SYN superior phrenic lymph nodes, under lymph node.

ductus n.'s, the highest nodes in a left pneumonectomy specimen that lie on the upper aspect of the left main branches and are accessed by dividing the ligamentum arteriosum.

Dürck's n.'s, perivascular chronic inflammatory infiltrates in the brain, occurring in human trypanosomiasis.

epitrochlear n.'s, SYN cubital lymph nodes, under lymph node.

fibular n., SYN fibular lymph node.

Flack's n., SYN sinuatrial n.

foraminal n., SYN foraminal lymph node.

Haygarth's n.'s, exostoses from the margins of the articular

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Nocioception: response to noxious or damaging stimuli.

Nocioceptors: receptors which respond to potentially harmful stimuli. Exhibit plasticity (can adapt or remember painful events).

Pain threshold

- Pain perception threshold - similar for all
- Pain tolerance threshold (pain becomes unbearable) - controlled by limbic system.

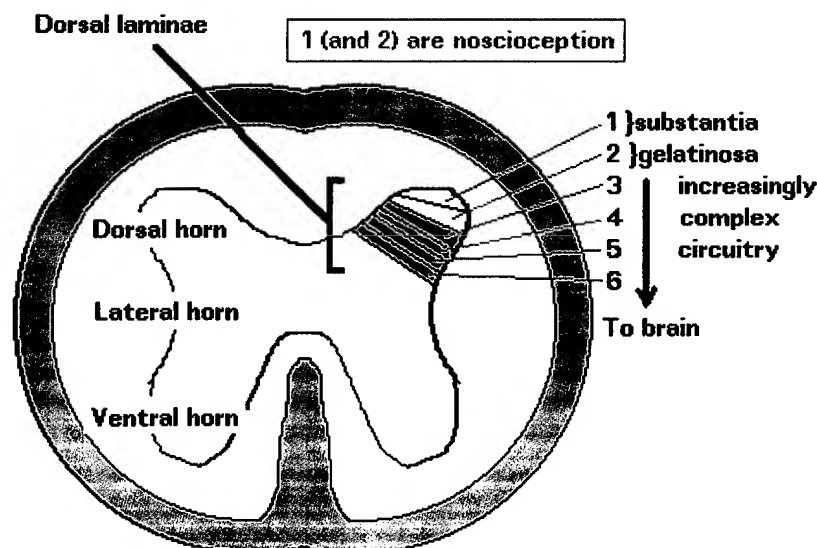
Primary Afferent Nocioceptive (PAN) fibres

- Ad fibres: myelinated, produce fast rapid phasic pain.
- C fibres: unmyelinated, produce slow persistent tonic pain. Release substance P, prostaglandins, bradykinin leucotrienes, serotonin, histamine.

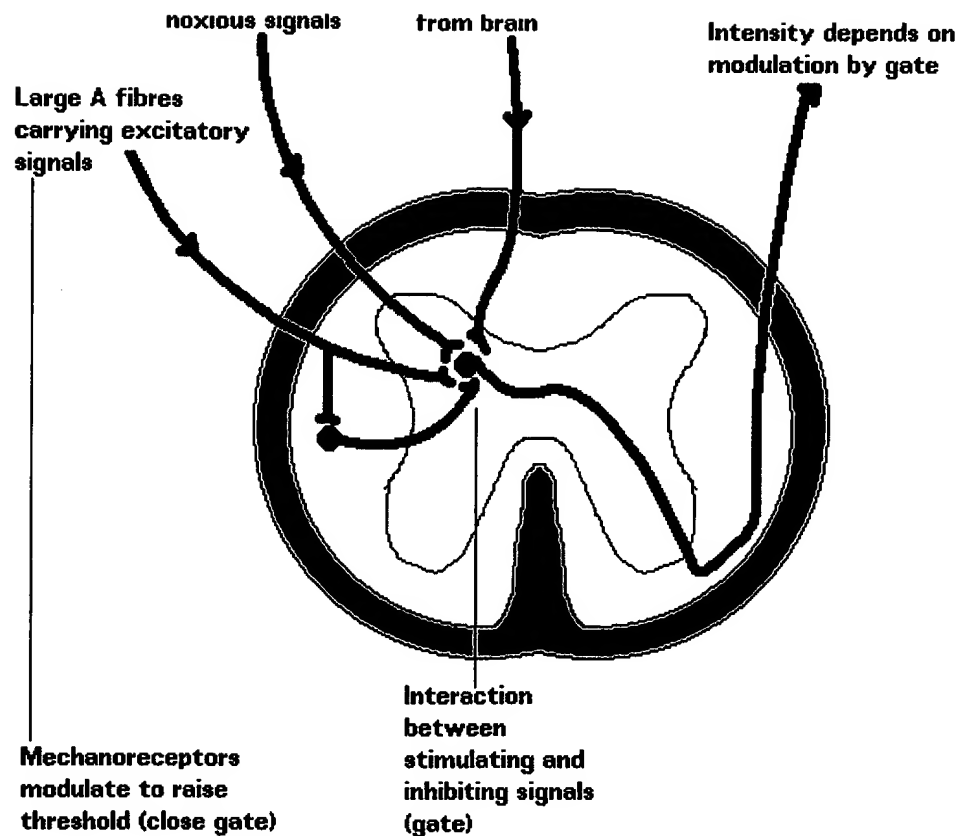
Mechanoreceptors

Do not distinguish between noxious and non-noxious stimuli.

Dorsal laminae



Gate theory



TENS/heat/massage work via A-fibres to suppress signal from C-fibres, therefore closing the gate.

Opioids

C nociceptors (long-acting) are sensitive to morphine. Aδ fibres are not.

There are 3 main receptor sites

- **Mu receptors** Agonists bind here (morphine) Naloxone is a specific antagonist at this site.
- **Kappa receptors** Analgesia but no respiratory depression. Morphine does not bind here. Pentazocine does (a partial agonist).
- **Sigma receptors** Vasomotor stimulation (hallucinations/paranoia)

Increasing endogenous opiates:

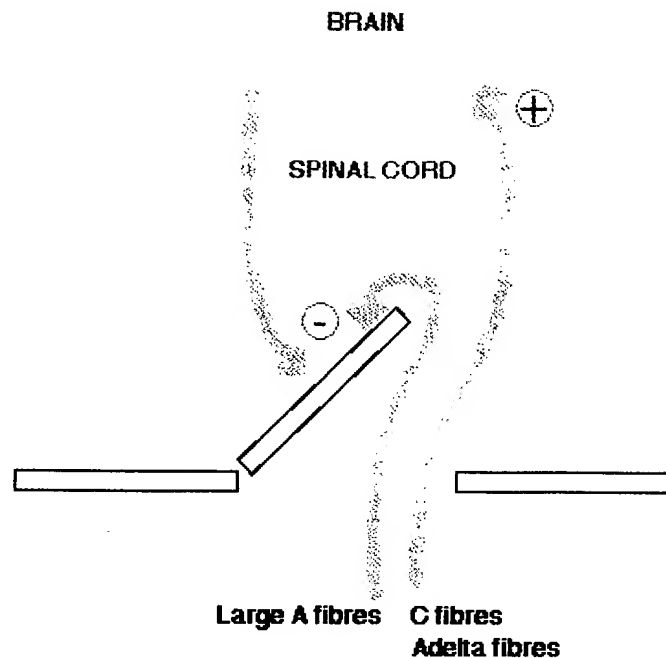
- acupuncture (effect reversed by naloxone)
- placebos
- exercise

Stimulation-produced analgesia (SPA)

- superficial massage
- pressure massage
- vibration
- heat/cold
- TENS

- acupuncture

A fibres degenerate more rapidly with age than C fibres, therefore elderly less likely to get relief from TENS/physio as more C fibre impulses manage to pass through the gate:



Assessment of pain

- Pain rating scales eg McGill questionnaire: 4 areas of description
 - Sensory (descriptive)
 - Affective (feelings generated)
 - Evaluative (severity)
 - Miscellaneous (descriptive)
- Behavioural assessment
 - Somatic intervention (medication/surgery)
 - Impaired functioning (Reduced mobility/occupational)
 - Pain complaints (verbal and non-verbal communication)

Managing pain Motivational Affective Cognitive "Medical" Pain management plan Medication Specific aids eg massage Exercise "hurt not harm" Rest Relaxation Focussing on things other than pain Healthy habits "building a life around health rather than the pain" 10% have treatable depression



Brad Cheek: 23 March 2005

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